

Case 3436

Pachynematus Konow, 1890 (Insecta, Hymenoptera): proposed precedence over *Epitactus* Förster, 1854

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the widely used sawfly generic name *Pachynematus* Konow, 1890 by giving it precedence over a very rarely used senior subjective synonym *Epitactus* Förster, 1854, whenever the two are considered to be synonyms. Under Article 24.2, the description of *Pachynematus* by Konow (1890a) is determined to have conferred availability on the genus name, not the simultaneous description by Konow (1890b). The type species of *Pachynematus* by subsequent designation of Schmidt et al. (1998) is *Nematus trisignatus* Förster, 1854, currently regarded as a synonym of *Pachynematus clitellatus* (Serville, 1823). This species and some of its close relatives are of economic significance as pests of cereal and grass-fodder crops in North America, Europe and China.

Keywords. Nomenclature; taxonomy; Hymenoptera; TENTHREDINIDAE; NEMATINAE; *Pachynematus*; *Epitactus*; *Nematus trisignatus*; *Epitactus praecox*; sawflies; Holarctic.

1. Förster (1854b, p. 435) described the monotypic genus *Epitactus* together with its type species *Epitactus praecox* Förster, 1854 (Förster, 1854b, pp. 435–436). The only character used to distinguish *Epitactus* Förster, 1854 from *Nematus* Panzer, 1801 (plate 82:10 and unnumbered page of facing text) was a difference in forewing venation; vein 2m-cu in the forewings meets M in cell 2RS in *Epitactus* and in cell 1RS in *Nematus* (the generic name *Nematus* was incorrectly attributed by Neave, 1839, v.3, p. 284, to Jurine (1807)). Förster gave no indication of the number of specimens on which he based his description.

2. Kriechbaumer (1885, pp. 9–10) examined the only known syntype of *Epitactus praecox* Förster, 1854 and determined this as a specimen of *Nematus capreae* (Panzer, 1799, plate 65:8 and unnumbered page of facing text) sensu Zaddach, 1876 (pp. 75–78) with abnormal wing venation. *Tenthredo capreae* Panzer, 1799 is not an available name, but a misidentification of a different taxon as *Tenthredo capreae* Linnaeus, 1758 (p. 559). *T. capreae* Linnaeus is a junior subjective synonym of *Nematus salicis* (Linnaeus, 1758, p. 557); see Schmidt et al., 1998 (p. 281). That Panzer was merely interpreting *Tenthredo capreae* Linnaeus and did not intend to describe a new species is demonstrated by Panzer's citation of previous descriptions by Linnaeus, Fabricius and others. Nevertheless, the name *N. capreae* (Linnaeus, 1758) sensu Panzer, 1799 (= *Pachynematus clitellatus* (Serville, 1823, p. 64)) was at Kriechbaumer's time widely used, with Panzer erroneously given as author, for the species now known as *Pachynematus clitellatus* (see Schmidt et al., 1998, p. 279). The

reasons for the long-lasting confusion about the application of the name *Tenthredo capreae* result partly from the difficult interpretation of the original description by Linnaeus based on larvae (Schmidt et al. 1998, pp. 279–281) and partly because the colour illustration of an adult published by Panzer under this name seems to represent what is now called *Pachynematus clitellatus*. Examination by Liston in 2006 of the lectotype female, in perfect condition, of *E. praecox* in the A. Förster Collection (Zoologische Staatssammlung, Munich) confirmed that this is conspecific with *P. clitellatus*. The syntype studied by Kriechbaumer is undoubtedly the same specimen that was designated as lectotype of *E. praecox* by Haris (1997), because Kriechbaumer discussed in detail the position of vein 2m-cu in the forewings also described by Förster (1854), which has so far only been found in this single specimen.

3. Konow (1890a, pp. 233, 238) and Konow (1890b, pp. 246–247) described the genus *Pachynematus* as new in two separate papers published simultaneously in the same journal issue. Either of these publications would alone have been sufficient to have established the generic name: the former because of the diagnosis (Article 12.1 of the Code), the latter because of the explicit inclusion of many available nominal species (Article 12.2.5). Following Article 24.2 (Determination by the First Reviser), the present author chooses Konow (1890a) as the publication that made the name *Pachynematus* available. No type species was designated for *Pachynematus* in either publication by Konow, but amongst 28 nominal species included by Konow (1890b) in the genus was '*N. Capreae* Pz.' (a misidentification of *Tenthredo capreae* Linnaeus, 1758: see above; actually *Nematus clitellatus* Serville, 1823), with the names '*N. haemorrhoidalis* Htg.' (i.e. *Nematus haemorrhoidalis* Hartig, 1840, p. 26), '*N. Kirbyi* Thms.' (i.e. *Nematus kirbyi* Dahlbom, 1835, p. 40) and '*N. trisignatus* Först.' (i.e. *Nematus trisignatus* Förster, 1854a, pp. 292–294) listed as its synonyms.

4. Rohwer (1911, p. 85) subsequently designated '*Nematus capreae* Panzer = *Nematus trisignatus* Förster' as type species of *Pachynematus* Konow, 1890. Rohwer's designation was correctly considered to be invalid by Schmidt et al. (1998, p. 281) because the name *Nematus capreae* Panzer is not available. The latter authors then designated *Nematus trisignatus* Förster, 1854 as type species of *Pachynematus*. Schmidt et al. misquote Rohwer, claiming that he designated *Tenthredo capreae* Panzer as the type species, but this mistake has no bearing on the validity of their action. Note that under Article 67.2.1 and the Code's Glossary definition of 'type species', both of which refer to 'a species', it may be inferred that an author is obliged, when designating a type species for a genus, to give a single name or, failing such, the name cited as the correct name (and not any explicitly mentioned synonym) is the only one to be regarded as having been designated as type. Furthermore, a strict reading of Article 67.2.1 leads to the conclusion that mentioned synonyms of 'originally included species' (such as *trisignatus* in the present Case) count as additional 'originally included species' if their names are available. Very important is the statement by Schmidt et al. that their designation of a type species was made because the name designated by Rohwer is not available. In the light of this statement, neither Article 69.2.4 nor Article 70.3, dealing with misidentified type species, bears on the validity of the type designation by Schmidt et al. (1998). *Nematus trisignatus* Förster, 1854, currently regarded as a synonym of *Pachynematus*

clitellatus (Serville, 1823), is accordingly accepted as type species of *Pachynematus*, by subsequent designation of Schmidt et al. (1998).

5. Abe & Smith (1991, pp. 30, 106) treated *Epitactus* Förster, 1854 as a valid genus. *Epitactus* can therefore not be regarded as a nomen oblitum.

6. Based on mistaken interpretation of Article 1.3.2 of the Code, Liston (1995, p. 173) wrongly regarded *Epitactus* Förster, 1854 as an unavailable name. It was not considered to be a teratological specimen by Förster himself, so this Article does not apply.

7. Haris (1997, p. 116) designated a lectotype for *Epitactus praecox* Förster, 1854, and treated the species name as a junior synonym of *Pachynematus clitellatus* (Lepeletier, 1823). *Nematus clitellatus* Lepeletier, 1823 (p. 62) is a junior objective synonym and primary homonym of *Nematus clitellatus* Serville, 1823. Lepeletier's work was published in August 1823 and Serville's on 24th May 1823 (Blank & Taeger, 1998, pp. 151–152). Haris (1997, p. 115) designated a lectotype for *Nematus trisignatus* Förster, 1854, treating *trisignatus* as the valid name for a species of *Pachynematus* Konow. The lectotype female in the Zoologische Staatssammlung, Munich, is in good condition: it was examined by Liston in 2006 and determined as belonging to *Pachynematus clitellatus* (Serville). Although Haris (1997) listed the existing labels of the specimens which he designated as lectotypes, thus enabling these to be located, he did not attach a label to either specimen which indicated this designation. Red labels have now been added: 'Lectotype *Epitactus praecox* Förster, 1854 designated A. Haris 1997, according to A. Liston 2009' and 'Lectotype *Nematus trisignatus* Förster, 1854 designated A. Haris 1997, according to A. Liston 2009'.

8. Taeger & Blank (1998, p. 257) noted that *Epitactus* Förster, 1854 is an available name and a senior synonym of *Pachynematus* Konow, 1890, but they deliberately maintained *Pachynematus* as the valid name for the genus pending preparation of an application to the Commission. In the same work (p. 263) they placed *Epitactus praecox* Förster and *Nematus trisignatus* Förster as junior synonyms of *Pachynematus clitellatus* (Serville) after examination of the lectotypes of *Epitactus praecox* and *Nematus trisignatus* and of the holotype of *Nematus clitellatus* Serville in the Museo Regionale di Scienze Naturali, Turin.

9. After 1899, *Epitactus* Förster, 1854 has only once been regarded as a valid genus (Abe & Smith, 1991). However, according to the Principle of Priority (Article 23.1 of the Code) the older name *Epitactus* would have to be applied instead of *Pachynematus* Konow, 1890, whenever the two are considered to be synonyms.

10. Until recently *Pachynematus* Konow, 1890 has been considered to be a large genus, diverse both in morphological characters and host plant associations (see for example Muche, 1974; Taeger et al., 1998). Subsequent taxonomists (e.g. Lacourt, 1999) have tended to remove many species from this apparently polyphyletic assemblage (Nyman et al., 2006) to a number of other more recently described genera. *Pachynematus* in its restricted present sense comprises a group of approximately 30 Holarctic species, some of which are of importance as pests of cereal and grass crops (Chu, 1949; Haris, 1995; Stoltz et al., 1999; Miller & Pike, 2002; Barker & Reynolds, 2004).

11. The name *Pachynematus* is firmly established in publications treating TENTHREDINIDAE in the northern hemisphere and has been used in numerous works on taxonomy, identification and economic entomology, as well as being mentioned in

most regional lists and local faunas (see Taeger et al., 2006 for further references). This name has been applied by more than 10 different authors during the last 10 years, and a representative list of 29 additional references dating from 1978–2006 and demonstrating use of the name *Pachynematus* is held by the Commission Secretariat. Use of the name *Epitactus* instead of *Pachynematus* is likely to cause confusion and to result in nomenclatural instability. Under the provisions of Article 23.9.3, the widely used sawfly generic name *Pachynematus* Konow, 1890 should be conserved by giving it precedence over the very rarely used senior subjective synonym *Epitactus* Förster, 1854, whenever the two are considered to be synonyms.

12. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *Pachynematus* Konow, 1890 precedence over the name *Epitactus* Förster, 1854, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Pachynematus* Konow, 1890 (gender: masculine), type species by subsequent designation by Schmidt et al. (1998) *Nematus trisignatus* Förster, 1854, with the endorsement that it is to be given precedence over *Epitactus* Förster, 1854, whenever the two are considered to be synonyms;
 - (b) *Epitactus* Förster, 1854 (gender: masculine), type species by monotypy *Epitactus praecox* Förster, 1854, with the endorsement that it is not to be given priority over *Pachynematus* Konow, 1890, whenever the two are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *trisignatus* Förster, 1854, as published in the binomen *Nematus trisignatus* (specific name of the type species of *Pachynematus* Konow, 1890);
 - (b) *praecox* Förster, 1854, as published in the binomen *Epitactus praecox* (specific name of the type species of *Epitactus* Förster, 1854).

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